Conceptualizing The Domain

Andy Trattner

The universe is computational in nature. Strangely, this phenomenon is not well understood, even by AI experts with Turing Awards like Yann LeCun. The implications of this principle - properly framed - exactly and precisely describe why and how prediction markets, forecasting, collective intelligence, and all such domains function.

Physics are the rules. Biology is one form of instantiated organic physics. So humans are computational creatures and we interact in markets via technologies like money, language, airplanes, tempered glass and acrylic with nylon netting for basketballs to go through, etc.

These interactions compose society, or humankind. An interaction is the building block of a market. Both of these concepts only exist due to the nature of change. Specifically, in our computational physical reality, we step through time.

The domain of information science is fundamentally grounded in abstract mathematical principles expressed through the reality of time. This defines our collective understanding of truth. Truth propagates through individuals only insofar as a critical mass of information enables a source node to validate by some social consensus mechanism(s).

The universe naturally "desires" to be in a state of low energy expenditure for efficiency reasons, like soap bubbles not being cubes. This is entropy minimization, or the 2nd law of thermodynamics. The source nodes above can be considered prime movers of truth, but really they are just entropically salient.

This model and set of underlying concepts are novel in linguistic expression. This is because the conceptual

underpinnings are not yet common knowledge, to such a degree that the technology of English does not function well enough to convince us of descriptive accuracy.

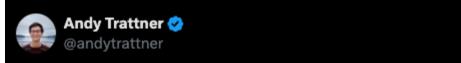
In fact, I conjecture only at most 2-20 people on the planet properly understand these ideas, which perfectly explains recent history such as who leads each of the large AI platforms and how Leopold Aschenbrenner saw his massive opportunity but required hundreds of pages to describe it.

What I'm describing is not only obscenely useful and represents the sum total of capitalism, it is in fact physically functionally descriptive, hence true and predictive up to the limits of society's computational capacity. The moral implications are most interesting.

Examples are innumerable and will only increase exponentially from here. I will happily use this principle to great effect on the Kalshi platform as a user, but I much prefer to present this idea and topic as a researcher so others can best make competitive use of it. Personally, I like dabbling in the talent markets, and this conceptual frame is required to build out Kalshi's infrastructure there.

My stated desires are all consistent with the computational framework. As a validator node for this idea, I'd like prediction markets as a whole to bring us closer in alignment with the computationally efficient, and therefore human-friendly, future. Markets seek truth. So does Elon.

As incentive-driven stochastic creatures confined within biology, we are in the fullness of time subject to markets more than the markets are subject to us. Even special nodes like Elon. Therefore, it is best if the markets and constituent interactors are well informed of exactly how they are doing what they are doing. This only is amplified in a world of AI and sufficient computational power harnessed in service of useful "value-creative" prediction.



Demis here points out Yann does not understand timesteps in a "universe as computer" model.

This means Yann probably doesn't view universe as computer in the way Elon or others obviously do.

This is a fatal error for humanity. Rectifying it only requires very basic math skill.



🕅 Demis Hassabis 🛂 @demishassabis · 11h

Yann is just plain incorrect here, he's confusing general intelligence with universal intelligence.

Brains are the most exquisite and complex phenomena we know of in the universe (so far), and they are in fact extremely general.... Show more



Andy Trattner ◆ @andytrattner · 7h to be extremely clear:



Ø ···

Demis is saying that a "humanoid robot" analog for an AI system is only limited by energy input to that system. which right now could be up to the total output of our sun in theoretical scale, that we can comprehend.

the sun has more energy than our civilization has ever harnessed.

civilization > individual human, so

AI > civilization > human

assuming any underlying compute and energy growth AT ALL, or even just tiny consolidation... like if Google ate Anthropic and Tesla or something.